



Joshua Lederberg

8-30-69

166

## Even Controlled Burning Of Forests Has Drawbacks

THE MASTERY of fire symbolizes, in the legend of Prometheus, the application of human intelligence to technology and man's escape from blind submission to the untempered cruelties of the life of the beast. The control of fires that ravage the forests is a mission whose emotional appeal would seem to be matched by its economic advantage. Few national heroes have as broad a following, at least in lip service, as does Smokey the Bear—and please do break your matches to be sure they're out.

It is a humbling reflection on how little we really know of our place in the world that our fire protection policies remain the center of continued argument among conservationist groups. Science magazine recently carried a broad overview by Mark Oberle, whose credentials as a contemporary ecologist include service as an emergency fire fighter in central Alaska.

THE PROBLEM is that man is not the only agent to

bring fire into the forest. Over the ages, however, our noblest trees have adapted to repeated clearings of underbrush fire, leaving the redwoods and tall pines unhampered by competition.

Periodic fires, furthermore, prevent the accumulation of ground litter that helps to fuel the devastating crown fires. After a few decades of careful coddling, some forests may become absolutely dependent on fire prevention, for if one gets a good start, it will be uncontrollable.

Animal life, like bear, deer and moose in Alaska and the condor in California, according to authorities quoted by Oberle, also suffer in the absence of "lightning fires to maintain a constant cycle of vegetation types for food and cover." The National Park Service and the Bureau of Indian Affairs have begun to follow prehistoric Indian practices of controlled burning, but the U.S. Forest Service, according to Oberle, has generally resisted this approach.

It cites the problems posed by fragmented ownership of land parcels and the legal liabilities that might attend the escape of an intentional though "preventive" fire, presumably more serious than those from an uncontrollable natural one. The general public, it is also assumed, would become indiscriminately careless about fire if preventive ones were intentionally started.

THERE IS possibly also a deeper lesson: that growth, death and change are part of nature. If our sentiments are not accompanied by knowledge deeper than we usually bother to acquire, our efforts to preserve a status quo may be self-defeating.

This view must not be an excuse to devastate our irre-

placeable 1,000-year-old redwoods; we have no substitute for them during our own and the next generations. But we could also be starting new forests whose management we may understand better than the ones we so imperfectly protect now.

Our urban centers may be posing an ecological parallel, but many of them have gone beyond reclaiming. Why do we persist in a futile struggle to rebuild them when their sites could better be planted to trees and new communities built where there is room and fresh air for their inhabitants?